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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------|
| 10/555,854   | 11/05/2005  | Dirk Schmidt         | HM-667PCT                     | 4616             |
| 40570  | 7590        | 01/21/2011           |                               |                  |
| Lucas & Mercanti, LLP<br>475 Park Avenue South, 15th Floor<br>New York, NY 10016 |             |                      | EXAMINER<br>WILSON, GREGORY A |                  |
|  |             |                      | ART UNIT                      | PAPER NUMBER     |
|  |             |                      | 3749                          |                  |
|  |             |                      | MAIL DATE                     | DELIVERY MODE    |
|  |             |                      | 01/21/2011 PAPER              |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/555,854

**Applicant(s)**

SCHMIDT ET AL.

**Examiner**

Gregory A. Wilson

**Art Unit**

3749

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5012 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsman's Patent Drawing Review (PTO-940)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 12/29/2010
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-3 & 5-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 1 has been amended to recite the limitations of "selectively changing a level of the water in the cooling basin so that the slabs and sheets are selectively sprayed with the water....", however the use of the term "selectively" has not been defined by the original specification. It has not been determined on what basis will the level of the water in the basin change, ie: under what circumstance will one level be chosen over another, nor is it described the circumstances in which water will/will not be sprayed on the slabs or sheets in relation to when the water is both above and below the "selectively" chosen water level.

Claims 1-3 and 5-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation of "directing cooling water laterally to the plane of the slabs or sheets and against both sides of the slabs and sheets; and selectively changing a level of the water in the cooling basin..." in lines 8-11, however it has not been established that the slabs or sheets are lowered into a cooling basin filled with water for there to exist a selective change of the water level. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

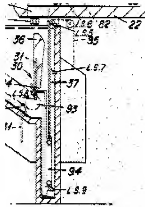
**Claims 1, 5, 7 and 9-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Michalik (3,706,544) in view of Powell et al (3,782,916)**. As best understood by the Examiner and in view of the 35 U.S.C. 112 rejection of claims 1-12, Michalik discloses a method of liquid quenching of slabs/sheets (ie: glass sheets) wherein the sheet (1) is lowered vertically into a cooling basin (17) and temporarily maintaining the slabs and sheets on edge so that the slabs or sheets define a vertical

plane (SEE Figures 1 & 2), directing cooling water (13) laterally to the plane of the sheets and against both sides of the sheet wherein the level of the water in the basin (17) is selectively changed dependant upon the water that is collected as the water runs off of the sheet (1) after having been sprayed by the water in the strengthening zone (13). Michalik does not particularly disclose preparation of the slabs prior to being vertically loaded into the cooling basin. Powell et al teaches an assembly of quenching a glass sheet and includes a member (16) which carries a sheet from a horizontal position and rotates it into a vertical position in preparation for being lowered into a quenching bath (SEE column 5, line 7 – column 6, line 41). It would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains to have modified Michalik by including the tilting structure (16) as taught by Powell et al and yield the predictable result disclosed by the applicants invention with the improvement of accommodating glass sheets arriving horizontally from a furnace car and erecting them vertically for preparation of quenching while limiting the capacity of the overall structure.

In re claim 5, evidence of controlling of the volume flow of the jet against the glass sheets is disclosed in Michalik (column 4, line 64 - column 5, line 9).

In re claims 9-12, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have further modified Michalik, by substituting the raising and lowering mechanism of Michalik and incorporating the carriage configuration of Powell et al including the track design, cable (29) (in re claim 10), rollers or wheels (SEE Figure 2 of Powell et al ) and motor (unnumbered)

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for the purpose of better controlling the rate at which the glass sheets will be lowered and raised for quenching.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory A. Wilson whose telephone number is (571)272-4882. The examiner can normally be reached on 7 am - 4:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve McAllister can be reached on (571) 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gregory A. Wilson/  
Primary Examiner, Art Unit 3749  
January 6, 2011